

WHAT IS CLAIMED IS:

1. A luminescence device, comprising: an organic compound layer comprising a metal coordination compound represented by the following formula (1):

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wherein M denotes Ir, Rh or Pd; n is 2 or 3; CyN denotes a substituted or unsubstituted cyclic group containing a nitrogen atom connected to M and capable of containing another nitrogen atom and/or a sulfur atom; and CyC denotes a substituted or unsubstituted cyclic group containing a carbon atom connected to M and capable of containing a nitrogen atom and/or a sulfur atom, CyN and CyC being connected to each other via a covalent bond, and each of substituents for CyN and CyC being selected from the group consisting of a halogen atom; nitro group; a trialkylsilyl group containing three linear or branched alkyl groups each independently having 1 - 8 carbon atoms; and a linear or branched alkyl group having 1 - 20 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C≡C- and capable of including a hydrogen atom which can be replaced with a fluorine atom; with the proviso that a sum of nitrogen atom and sulfur atom present in ring structures of CyN and CyC is at least 2.

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2. A device according to Claim 1, wherein the metal coordination compound of formula (1) has a molecular structure free from a portion substantially causing intramolecular rotation and exhibits a peak emission wavelength of at least 550 nm.

3. A device according to Claim 1, wherein the metal coordination compound of formula (1) contains a liquid having a dipole moment of at most 7 debye and exhibits a peak emission wavelength of at least 550 nm.

4. A device according to Claim 3, wherein the ligand has a dipole moment of at most 4 debye.

5. A luminescence device, comprising an organic compound layer comprising a metal coordination compound, wherein the metal coordination compound has a molecular structure free from a portion substantially causing intramolecular rotation and exhibits a peak emission wavelength of at least 550 nm.

6. A luminescence device, comprising an organic compound layer comprising a metal coordination compound, wherein the metal coordination compound contains a liquid having a dipole moment of at most 7

debye and exhibits a peak emission wavelength of at least 550 nm.

7. A device according to Claim 6, wherein the
5 ligand has a dipole moment of at most 4 debye.

8. A device according to Claim 1, further comprising a pair of electrodes oppositely disposed to sandwich the organic compound layer, wherein a voltage
10 is applied between the pair of electrodes to cause luminescence.

9. A display apparatus, comprising: a
luminescence device according to Claim 1 and drive
15 means for driving the luminescence device.

10. A metal coordination compound, adapted for
use in a luminescence device, represented by the
following formula (1):



wherein M denotes Ir, Rh or Pd; n is 2 or 3; CyN denotes a substituted or unsubstituted cyclic group containing a nitrogen atom connected to M and capable of containing another nitrogen atom and/or a sulfur atom; and CyC denotes a substituted or unsubstituted cyclic group containing a carbon atom connected to M

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and capable of containing a nitrogen atom and/or a sulfur atom, CyN and CyC being connected to each other via a covalent bond, and each of substituents for CyN and CyC being selected from the group consisting of a halogen atom; nitro group; a trialkylsilyl group containing three linear or branched alkyl groups each independently having 1 - 8 carbon atoms; and a linear or branched alkyl group having 1 - 20 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C≡C- and capable of including a hydrogen atom which can be replaced with a fluorine atom; with the proviso that a sum of nitrogen atom and sulfur atom present in ring structures of CyN and CyC is at least 2.

11. A compound according to Claim 10, which has a molecular structure free from a portion substantially causing intramolecular rotation and exhibits a peak emission wavelength of at least 550 nm.

12. A compound according to Claim 10, which contains a liquid having a dipole moment of at most 7 debye and exhibits a peak emission wavelength of at least 550 nm.

13. A compound according to Claim 12, wherein the

ligand has a dipole moment of at most 4 debye.

14. A metal coordination compound adapted for
use in a luminescence device, having a molecular
5 structure free from a portion substantially causing
intramolecular rotation and exhibiting a peak emission
wavelength of at least 550 nm.

15. A metal coordination compound adapted for use
10 in a luminescence device, containing a ligand having a
dipole moment of at most 7 debye and exhibiting a peak
emission wavelength of at least 550 nm.

16. A compound according to Claim 15, wherein the
15 ligand has a dipole moment of at most 4 debye.

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